

wherein for structures I, II and III:

each T is a single bond or a group having the formula:

$$-\{[CR^1R^2]_m-[R^3]_n-[CR^1R^2]_p-[C(R^4)]_q-[R^5]_r\}_s-$$

each R^1 , R^2 and R^6 is, independently, H, alkyl having 1 to about 10 carbon atoms, haloalkyl having 1 to about 10 carbon atoms, alkenyl having 2 to about 10 carbon atoms, alkynyl having 2 to about 10 carbon atoms or aryl having 6 to about 14 carbon atoms;

each R³ and R⁵ is, independently, a single bond, CH=CH, an alkyne having 2 carbon atoms, O, S, NR⁶, SO₂, C₆-C₁₄ aryl, substituted C₆-C₁₄ aryl, heteroaryl, substituted heteroaryl, a nitrogen, oxygen or sulfur containing heterocycle, a substituted nitrogen, oxygen or sulfur containing heterocycle, a mixed heterocycle, a substituted mixed heterocycle; wherein each of the substituent groups is selected from a group consisting of hydroxyl, alkyl, alkenyl, alkynyl, alkoxy, benzyl, phenyl, aryl, nitro, thiol, thioalkoxy and halo, provided that R³ and R⁵ are not morpholino;

each R⁴ is =O, =S or =NR⁶;

each m, n, p and r is, independently, zero to 5;

each q is zero to 1;

each s is 1 to 10; and

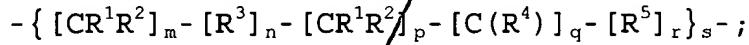
each L is, independently, C₁-C₁₀ alkyl, substituted C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, substituted C₂-C₁₀ alkynyl, C₄-C₇ carbocyclic alkyl, substituted C₄-C₇ carbocyclic alkyl, C₄-C₁₀ alkenyl carbocyclic, substituted C₄-C₁₀ alkenyl carbocyclic, C₄-C₁₀ alkynyl carbocyclic, substituted C₄-C₁₀ alkynyl carbocyclic, a nitrogen, oxygen or sulfur containing saturated heterocycle, a substituted nitrogen, oxygen or sulfur containing saturated heterocycle, a benzo-fused heterocycle, a substituted benzo-fused heterocycle, a mixed heterocycle, or a substituted mixed heterocycle; wherein each of the substituent groups is selected from a group consisting of alkyl, alkenyl,

alkynyl, aryl, hydroxyl, alkoxy, benzyl, nitro, thiol, thioalkyl, thioalkoxy and halo; or L is, independently, piperazine, pyridazine, pyrazine, triazine, phthalimido, an ether having 2 to 10 carbon atoms and 1 to 4 oxygen or sulfur atoms, a metal coordination group, a conjugate group, halogen, hydroxyl, thiol, keto, carboxyl, NR¹R², CONR¹, amidine, guanidine, glutamyl, nitro, nitrate, nitrile, trifluoromethyl, trifluoromethoxy, NH-alkyl, N-dialkyl, O-aralkyl, S-aralkyl, NH-aralkyl, azido, hydrazino, hydroxylamino, sulfoxide, sulfone, sulfide, disulfide, silyl, a nucleosidic base, an amino acid side chain, a carbohydrate, a drug or a group capable of hydrogen bonding;

and for structures IV and V:

each j and e is 0 or 1, with the sum of j and e equal to 1;

each T is a single bond or a group having the formula:



each R¹, R² and R⁶ is, independently, H, alkyl having 1 to about 10 carbon atoms, haloalkyl having 1 to about 10 carbon atoms, alkenyl having 2 to about 10 carbon atoms, alkynyl having 2 to about 10 carbon atoms or aryl having 6 to about 14 carbon atoms;

each R³ and R⁵ is, independently, a single bond, CH=CH, an alkyne having 2 carbon atoms, O, S, NR⁶, SO₂, C₆-C₁₄ aryl, substituted C₆-C₁₄ aryl, heteroaryl, substituted heteroaryl, a nitrogen, oxygen or sulfur containing heterocycle, a substituted nitrogen, oxygen or sulfur containing heterocycle, a mixed heterocycle, a substituted mixed heterocycle; wherein each of the

substituent groups is selected from a group consisting of hydroxyl, alkyl, alkenyl, alkynyl, alkoxy, benzyl, phenyl, aryl, nitro, thiol, thioalkoxy and halo, provided that R³ and R⁵ are not morpholino;

each R⁴ is =O, =S or =NR⁶;

each m, n, p and r is, independently, zero to 5;

each q is zero to 1;

each s is 1 to 10; and

each L is, independently, C₁-C₁₀ alkyl, substituted C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, substituted C₂-C₁₀ alkynyl, C₄-C₇ carbocyclic alkyl, substituted C₄-C₇ carbocyclic alkyl, C₄-C₁₀ alkenyl carbocyclic, substituted C₄-C₁₀ alkenyl carbocyclic, C₄-C₁₀ alkynyl carbocyclic, substituted C₄-C₁₀ alkynyl carbocyclic, C₆-C₁₄ aryl, substituted C₆-C₁₄ aryl, heteroaryl, substituted heteroaryl, a nitrogen, oxygen or sulfur containing heterocycle, a substituted nitrogen, oxygen or sulfur containing heterocycle, a mixed heterocycle, or a substituted mixed heterocycle; wherein each of the substituent groups is selected from a group consisting of alkyl, alkenyl, alkynyl, aryl, hydroxyl, alkoxy, benzyl, nitro, thiol, thioalkyl, thioalkoxy and halo; or L is, independently, phthalimido, an ether having 2 to 10 carbon atoms and 1 to 4 oxygen or sulfur atoms, a metal coordination group, a conjugate group, halogen, hydroxyl, thiol, keto, carboxyl, NR¹R², CONR¹, amidine, guanidine, glutamyl, nitro, nitrate, nitrile, trifluoromethyl, trifluoromethoxy, NH-alkyl, N-dialkyl, O-aralkyl,

S-aralkyl, NH-aralkyl, azido, hydrazino, hydroxylamino, sulfoxide, sulfone, sulfide, disulfide, silyl, a nucleosidic base, an amino acid side chain, a carbohydrate, a drug or a group capable of hydrogen bonding.

In claims 2-8, 12-15 and 19, please delete "claim 1" and insert --claim 31-- therefor.

Please amend claims 16-18 and 24-26 as follows.

16. The mixture of claim [1] ~~31~~ wherein [said process comprises the blocking and deblocking of] at least one of said functionalizable [atom] atoms of said heterocyclic scaffold[.] is blocked and subsequently deblocked.

17. The mixture of claim [1] ~~31~~ wherein at least some of said chemical compounds are subsequently [reacted with a further reactant] further substituted with a chemical substituent.

18. The mixture of claim 17 wherein [said further reactant reacts with] the heterocyclic portion of [the] said chemical compounds is further substituted with a chemical substituent.

24. The mixture of claim [20] ~~31~~ wherein said mixture exhibits sensible antibacterial effect. *intended use*